## <u>ABSTRACT</u>

Process for the purification of aqueous peroxygen solutions comprising the treatment of an aqueous peroxygen solution with (a) at least one membrane purification step, (b) optionally at least one ion exchange purification step, (c) optionally at least one dilution step, and (d) at least one other purification step, all of which can be conducted in any sequence. Aqueous peroxygen solutions having a TOC level of less than 1 mg/kg can be obtained by this process. They can be used in the manufacture of semiconductors.